

IFW Receipt



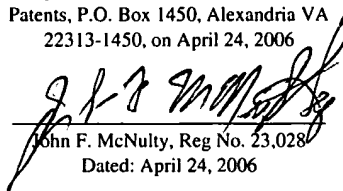
PATENT

IN THE UNITED STATES PATENT OFFICE

Serial No.: 10/544,252  
Filed: August 2, 2005  
Based on: PCT/EP2004/02208  
Title: **METHOD OF ELECTROPLATING A  
WORKPIECE HAVING HIGH-ASPECT  
RATIO HOLES**  
Inventor(s): Bert Reents et al.  
Priority Date  
Claimed: March 10, 2003  
Docket No.: 230-05

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service First Class mail postage prepaid in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450, on April 24, 2006

  
John F. McNulty, Reg No. 23,028  
Dated: April 24, 2006

COVER LETTER WITH CERTIFICATE OF MAILING

*Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450*

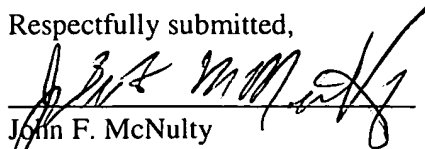
Dear Sir:

Enclosed and attached hereto are the following documents:

- (1) Cover Letter with Certificate of Mailing;
- (2) Request for Correction of Filing Receipt (1 page);
- (3) Copy of filing receipt with changes indicated in red ink;
- (4) Copy of form PCT/IB/345 (2 pages) previously submitted on August 2, 2005; and
- (5) Paul and Paul Postcard to be returned by the PTO.

NO FEE IS BELIEVED TO BE REQUIRED, HOWEVER, THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES ASSOCIATED WITH THIS COMMUNICATION, OR CREDIT ANY OVERPAYMENT, TO PAUL & PAUL DEPOSIT ACCOUNT NO. 16-0750, ORDER NO. 3925.

Respectfully submitted,

  
John F. McNulty  
Reg. No. 23,028  
Paul & Paul  
2900 Two Thousand Market St.  
Philadelphia, PA 19103  
(215) 568-4900



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***REQUEST FOR CORRECTION OF FILING RECEIPT***

***Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450***

Dear Sir:

Please correct the filing receipt for the above-referenced application as follows:

- 1) The correct International filing date is as follows:

**March 4, 2004.**

A photocopy of the filing receipt with changes indicated in red is included herewith. Also, included is form PCT/IB/345 reflecting the same, previously submitted on August 2, 2005, with PCT application papers.

Respectfully submitted,



John F. McNulty

Reg. No. 23,028

Paul & Paul

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UNITED STATES PATENT AND TRADEMARK OFFICE

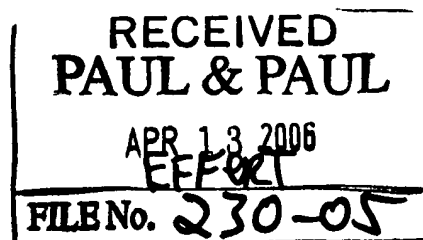
**DOCKETING**

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/544,252	08/02/2005	1742	2060	230-05	7	19	1

CONFIRMATION NO. 9806

27569  
 PAUL AND PAUL  
 2000 MARKET STREET  
 SUITE 2900  
 PHILADELPHIA, PA 19103



## FILING RECEIPT



\*OC000000018444132\*

Date Mailed: 04/05/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Bert Reents, Berlin, GERMANY;  
 Tafadzwa Magaya, Berlin, GERMANY;

**Power of Attorney:** The patent practitioners associated with Customer Number 27569.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/EP04/02208 02/04/2004

March 4, 2004

## Foreign Applications

GERMANY 10311575.7 03/10/2003

If Required, Foreign Filing License Granted: 04/03/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/544,252**

Projected Publication Date: 07/13/2006

Non-Publication Request: No

Early Publication Request: No

# INTERNET COOPERATION TREATY

## PCT

COMMUNICATION IN CASES FOR WHICH  
NO OTHER FORM IS APPLICABLE

From the INTERNATIONAL BUREAU

To:

EFFERT, BRESSEL UND KOLLEGEN  
Radickestrasse 48  
12489 Berlin  
ALLEMAGNE

EINGEGANGEN

12. Nov. 2004

Erl.....*DS*...

Date of mailing (day/month/year) 03 November 2004 (03.11.2004)	
Applicant's or agent's file reference P60184PCT	REPLY DUE see paragraph 1 below
International application No. PCT/EP2004/002208	International filing date (day/month/year) 04 March 2004 (04.03.2004)
Applicant ATOTECH DEUTSCHLAND GMBH	

1. ☐ REPLY DUE within \_\_\_\_\_ months/days from the above date of mailing
- ☐ NO REPLY DUE, however, see below
- ☒ IMPORTANT COMMUNICATION
- ☐ INFORMATION ONLY

2. COMMUNICATION:

The applicant in respect of the above identified international application is notified that the receiving Office (RO/EP) has stamped an incorrect international filing date on the first page of the request and has now informed the International Bureau of the corrected date.

Please correct all notifications previously sent by the International Bureau to indicate the correct filing date of:

04 March 2004  
(04.03.04)

instead of:

04 February 2004  
(04.02.04)

A copy of this notification has been sent to the receiving Office (RO/EP) and the designated Offices concerned..

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 338.89.75	Authorized officer Jocelyne REY-MILLET (Fax : 338 89 75) Telephone No. (41-22) 338.99.43
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CORRECTED VERSION

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 September 2004 (23.09.2004)

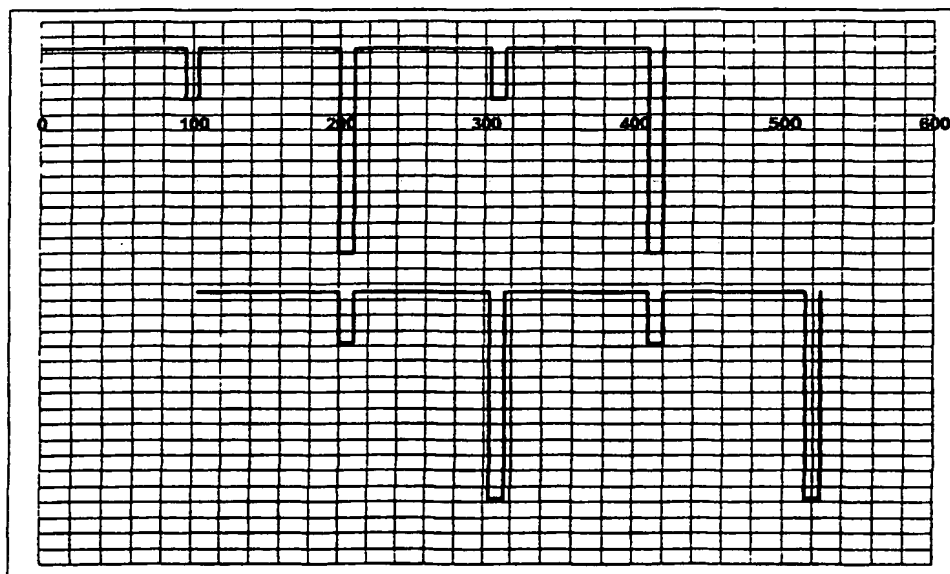
PCT

(10) International Publication Number  
**WO 2004/081262 A1**

- (51) International Patent Classification<sup>7</sup>: C25D 7/12, 5/18, H05K 3/24
- (21) International Application Number: PCT/EP2004/002208
- (22) International Filing Date: 4 March 2004 (04.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
103 11 575.7 10 March 2003 (10.03.2003) DE
- (71) Applicant (for all designated States except US):  
ATOTECH DEUTSCHLAND GMBH [DE/DE];  
Erasmusstrasse 20, 10553 Berlin (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): REENTS, Bert [DE/DE]; Böttzowstrasse 31, 10407 Berlin (DE). MAG-AYA, Tafadzwa [ZW/DE]; Sickingenstrasse 77, 10553 Berlin (DE).
- (74) Agent: EFFERT, BRESSEL UND KOLLEGEN;  
Radickestrasse 48, 12489 Berlin (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD OF ELECTROPLATING A WORKPIECE HAVING HIGH-ASPECT RATIO HOLES



(57) Abstract: In order to electroplate workpieces comprising high-aspect ratio holes a method is disclosed comprising the steps bringing the workpiece and at least one anode into contact with a metal plating electrolyte, and applying a voltage between the workpiece and the anodes, to the effect that a current flow is provided to the workpiece. The current flow is a pulse reverse current flow having a frequency of at most about 6 Hertz. According to the frequency each cycle time comprises at least one forward current pulse and at least one reverse current pulse.

WO 2004/081262 A1